



CHEMISTRY NMDCAT

(UNIT-1)

www.saeedmdcat.com

SAEED MDCAT

03418729745(WhatsApp Groups)

TOPICS

✓ **INTRODUCTION TO FUNDAMENTAL CONCEPTS OF CHEMISTRY**

Q.1 72g of glucose contains how many moles of glucose
a. 0.2
b. 0.6
c. 0.4
d. 0.5

Q.2 The number of molecules in 8.96 dm^3 of a gas at 0°C and 1 atm pressure is?
a. 6.02×10^{23}
b. 2.408×10^{24}
c. 1.204×10^{24}
d. 2.408×10^{23}

Q.3 When 0.5 mole of sulphuric acid is dissolved in aqueous solution how many moles of -ve and +ve ions are collected altogether (assuming complete dissociation)
a. 0.5
b. 1.0
c. 1.5
d. 2.0

Q.4 How many moles of neutron are present in 1 mole of water?
a. 18
b. 10
c. 8
d. 20

Q.5 Which of following has minimum number of particles
a. 1 g of Na
b. 1 g of K
c. 1 g of H_2
d. 1 g of N_2

Q.6 Which of the following term is used for the mass of chlorine 35.5 amu?
a. Relative atomic mass
b. Fractional atomic mass
c. Average atomic mass
d. All of these

Q.7 Avogadro's number is the number of molecules present in
a. 1 dm^3 of molecule
b. 1 g of formula mass
c. 1 g molecule
d. 1 g of atom

Q.8 CH_3O is the empirical formula of
a. $\text{C}_{12}\text{H}_{22}\text{O}_{11}$
b. CH_3COOH
c. $\text{CH}_2(\text{OH})\text{CH}_2(\text{OH})$
d. CH_3CHO

Q.9 An atom of Mg is six times heavier than _____ atom
a. H
b. Ne
c. He
d. Li

Q.10 For which of the following compounds, the term empirical formula can be applied
a. NaCl
b. H_2O
c. CCl_4
d. All of these

Q.11 Which of the following has same number of atoms as in 1.2g of graphite?
a. 12g of C
b. 11g of Na
c. 3g of diamond
d. 2.4g of Mg

Q.12 The sole product of organic compounds after combustion analysis that is absorbed in 50% KOH
a. CO_2
b. O_2
c. H_2O
d. CO

Q.13 24g of organic compound is burnt in excess of O_2 , 1.1g CO_2 is produced. The percentage of C in this compound is
a. 2.5%
b. 1.25%
c. 12.5%
d. 6.25%

Q.14 For stoichiometry calculations, we have to assume
a. Mass of reactant is less than mass of products





Q.29 The number of atoms in 1.8g of NH_4^+ is approximately
a. 6.02×10^{23} b. 3.01×10^{23}
c. 1.5×10^{23} d. 6.02×10^{22}

Q.30 The simplest formula of a compound containing 50% element X (At. wt = 20) and 50% of element Y (At. Wt = 10) is
a. XY b. XY_2
c. X_2Y d. X_2Y_2

Q.31 Select the suitable term about 74.5g of KCl
a. 1g atom b. 1g ion
c. 1g formula unit d. 1g molecule

Q.32 What is volume occupied by 4.4g of N_2O at STP
a. 22.414 cm^3 b. 2241.4 cm^3
c. 2.2414 cm^3 d. 11.207 cm^3

Q.33 5600 cm^3 of oxygen gas is collected at STP from Hydrilla plant by photosynthesis. The mass of oxygen gas produced is:
a. 32g b. 16g
c. 8g d. 4g

Q.34 $3N_A$ number of ionizable H^+ are present in 1mole of
a. H_2SO_4 b. H_3PO_4
c. $(\text{COOH})_2$ d. CH_3COOH

Q.35 Which is the mass of CaCO_3 which on heating produces 0.25 moles of carbon dioxide gas
a. 12.5g b. 50g
c. 25g d. 100g

Q.36 Determine the number of moles of hydrogen atoms in 18g of $\text{C}_6\text{H}_{12}\text{O}_6$
a. 0.6 mole b. 0.1 mole
c. 0.2 mole d. 1.2 mole

Q.37 How much oxygen is required to react completely with 81g of Al to form alumina
a. 24g b. 48g
c. 72g d. 96g

Q.38 Total number of oxygen atoms are present in 44g of CO_2
a. $0.5 N_A$ b. $1.0 N_A$
c. $3.0 N_A$ d. $2.0 N_A$

Q.39 One mole of an organic compound is completely burnt in excess of oxygen which compound produces exactly four moles of water?
a. Butane b. Ethane
c. Ethanol d. Propane

Q.40 When 2g H_2 gas and 16g O_2 gas react completely to produce H_2O , what is non-limiting reactant?
a. Hydrogen b. Water
c. Oxygen d. Both are consumed completely

Q.41 The number of carbon atoms in 90g of $\text{C}_6\text{H}_{12}\text{O}_6$
a. $6 \times N_A$ b. $3 \times N_A$
c. $1.5 \times N_A$ d. $0.25 \times N_A$

Q.42 Volume of nitric oxide gas produced by the following reactions of 14g N_2 with excess of oxygen is $\text{N}_{2(g)} + \text{O}_{2(g)} \xrightarrow{300^\circ\text{C}} 2\text{NO}_{(g)}$
a. 22.4dm^3 b. 5.6dm^3
c. 11.2dm^3 d. 2.8dm^3

Q.43 Haemoglobin molecule is _____ times heavier than H_2
a. 17, 000 b. 68, 000
c. 8500 d. 34,000

Q.44 2.8g of N_2 molecules contain number of chemical bonds



a. 6.02×10^{22} b. 1.204×10^{23}
c. 1.8×10^{23} d. 1.8×10^{22}

Q.45 The statement which is incorrect about stoichiometric calculation
a. All reactants are converted into products
b. No side reaction occurs
c. Law of conservation of mass and law of definite proportion are obeyed
d. Reactions may be reversible

Q.46 How many number of electrons are present in 4.2g of azide ion (N_3^-)
a. 2.1 N_A b. 2.2 N_A
c. 21 N_A d. 22 N_A

Q.47 23g of sodium and 24g of magnesium have equal _____ in them
a. Mass b. Number of protons
c. Number of atoms d. All of these

Q.48 4g of CH_4 at 0°C and 1 atm pressure contains number of carbon atoms
a. 6.02×10^{23} b. 3.01×10^{23}
c. 1.5×10^{23} d. 1.5×10^{22}

Q.49 Hydrogen burns in chlorine to produce hydrogen chloride.
$$\text{H}_2 + \text{Cl}_2 \longrightarrow 2\text{HCl}$$

The ratio of masses of reactants in chemical reaction is
a. 2 : 35.5 b. 2 : 17
c. 1 : 71 d. 1 : 35.5

Q.50 Which one will produce largest number of negatively charged ions in case of 100% dissociation of 1 mole
a. AlCl_3 b. Na_2SO_4
c. NaOH d. ZnCl_2

Q.51 An acid with molecular mass 104 contain 34.6% C, 3.85% H and rest is O. The molecular formula of acid is
a. $\text{C}_3\text{H}_4\text{O}_4$ b. $\text{C}_2\text{H}_2\text{O}_4$
c. $\text{C}_2\text{H}_2\text{O}$ d. C_2HO_2

Q.52 The total number of atoms in 9g of water are
a. 3.01×10^{23} b. 4.51×10^{23}
c. 6.02×10^{23} d. 9.03×10^{23}

Q.53 A pair that have same number of molecules
a. 32g O_2 and 32g N_2H_4 b. 34g H_2S and 34g N_2H_4
c. 30g N_2 and 30g C_2H_6 d. 44g CO_2 and 44g CS_2

Q.54 One mole of which of the following will have different number of electrons than others
a. Na^{+1} b. H_2O
c. NH_3 d. CO^{+1}

Q.55 21g of CaO is obtained by roasting 50g CaCO_3 . What is the percentage yield of CaO ?
a. 25% b. 50%
c. 75% d. 60%

Q.56 The number of moles of KMnO_4 that contain 1 mole of oxygen atom
a. 2 moles b. 0.5 moles
c. 0.25 moles d. 1.5 moles

Q.57 Elemental analysis is performed to determine
a. Molar mass of the compound
c. Empirical formula of a compound
b. Structural formula of a compound
d. Mass of halogen present in a compound

Q.58 Hydrogen and oxygen have same at STP
a. Gram molecular weight
c. Gram molecular volume
b. Protons in the molecules
d. Electrons in the valence shell

Q.59 Which one is incorrect relation at STP
a. 6g of carbon = 3.01×10^{23} atoms
c. 49 g of H_2SO_4 = 4 moles of atoms
b. 11.2 dm^3 of CO_2 = 3.01×10^{23} molecules
d. 1 mole of sucrose = 45 moles of atoms



Q.60 1.97g of gold was recovered from thief. How many atoms of gold were recovered (Au = 197g/mol)

a. 6.02×10^{25}
b. 6.02×10^{23}
c. 6.02×10^{22}
d. 6.02×10^{21}

CHEM T-1

1 gram of H_2 = mass of H_2
1 gram H_2 = mole

A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D			
1	○	○	●	○	16	○	○	○	●	○	○	○	46	○	○	○		
2	○	○	○	●	17	○	○	●	○	32	○	●	○	○	47	○	○	○
3	○	○	●	○	18	○	○	○	●	33	○	○	●	○	48	○	○	○
4	○	○	●	○	19	○	○	●	○	34	○	●	○	○	49	○	○	○
5	○	●	○	○	20	●	○	○	○	35	○	○	●	○	50	○	○	○
6	○	○	○	●	21	○	○	●	○	36	○	●	○	●	51	○	○	○
7	○	●	●	○	22	○	○	●	○	37	○	○	○	●	52	○	○	○
8	○	●	○	○	23	○	○	●	○	38	○	○	○	●	53	○	○	○
9	○	○	●	○	24	●	○	○	○	39	○	○	○	●	54	○	○	○
10	○	○	○	●	25	○	●	○	○	40	○	○	○	●	55	○	○	○
11	○	○	○	●	26	○	○	●	○	41	○	●	○	○	56	○	○	○
12	●	○	○	○	27	○	○	○	●	42	●	○	○	○	57	○	○	○
13	○	●	○	○	28	○	○	○	●	43	○	○	●	○	58	○	○	○
14	○	●	●	○	29	○	●	●	○	44	○	○	○	○	59	○	○	○
15	○	●	○	○	30	○	●	○	○	45	○	○	○	○	60	○	○	○

10

SAEED MDCAT TEAM

**For More Test And Lecture ,Visit Our Official Website
www.saeedmdcat.com**

**And Must be Join Our WhatsApp
Group(03418729745)**

SAEED MDCAT

If you want to get all the test and Lec of all Academy then follow us on different platforms

WEBSITE. www.saeedmdcat.com

FB Group And Page. SAEED MDCAT

INSTAGRAM. SAEED MDCAT

Twitter. Smdcat

For WhatsApp Group. 03418729745

Regards. Huzaifa Saeed, Usama Sohail

Saeed MDCAT

TRUE HERO ALWAYS WINS

National MDCAT 2020 Results

190+ 35 Students

185+ 218 Students

180+ 677 Students

JOIN US FOR FREE

TO SECURE YOUR FUTURE



SAEED MDCAT
SAEED MDCAT TEAM
[f/SAEEDMDCAT](https://www.facebook.com/SAEEDMDCAT)